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## Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) as Donor Ligands in Organotin(IV) Derivatives: Synthesis, Spectroscopic Characterization and Biological Applications

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**Abstract:** Some new di- and tri-organotin(IV) derivatives of 4 different non-steroidal anti-inflammatory drugs (NSAIDs) with the general formulae  $R_2SnL_2$  and  $R_3SnL$  (where  $R = n-C_8H_{17}$  and  $C_6H_5CH_2$ ) and  $L = 2-[(2,3\text{-dimethylphenyl})\text{amino}]\text{benzoic acid}$ ,  $2-(2\text{-fluoro-4-biphenyl})\text{propionic acid}$ ,  $2-(4\text{-isobutylphenyl})\text{propionic acid}$  and  $2-(3\text{-benzoylphenyl})\text{-propionic acid}$  were synthesized. These compounds were structurally characterized by infrared and multinuclear NMR ( $^1H$ ,  $^{13}C$ ,  $^{119}Sn$ ) spectroscopies and mass spectrometry. The isotopic effect of tin was studied by comparison of experimental data with the simulated isotopic pattern using the Chemtool software package. These compounds were also screened against different animal and plant pathogens to study their biological activity.  $LD_{50}$  data show that the reported compounds have significant toxicity.

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